



## ABSTRACT

The present invention provides amino acid sequences and transcript sequences that are encoded by 511 genes within the *Drosophila melanogaster* genome that are essential for survival, the *Drosophila* proteins of the present invention. The present invention specifically provides isolated protein and nucleic acid molecules, methods of identifying orthologs and paralogs of the *Drosophila* proteins and methods of identifying modulators of the *Drosophila* proteins (e.g. insecticides).

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